Correspondence

The Editorial Board will be pleased to receive and consider for publication correspondence containing information of interest to physicians or commenting on issues of the day. Letters ordinarily should not exceed 600 words, and must be typewritten, double-spaced and submitted in duplicate (the original typescript and one copy). Authors will be given an opportunity to review any substantial editing or abridgment before publication.

Computerized Tomography in the Management of Cerebral Tuberculomas

TO THE EDITOR: Computerized tomography (CT) has become a valuable tool in the evaluation of patients with a wide variety of intracranial diseases.[1] We are currently treating a woman with multiple cerebral tuberculomas for whom the CT scan has provided information crucial to her diagnosis and management.

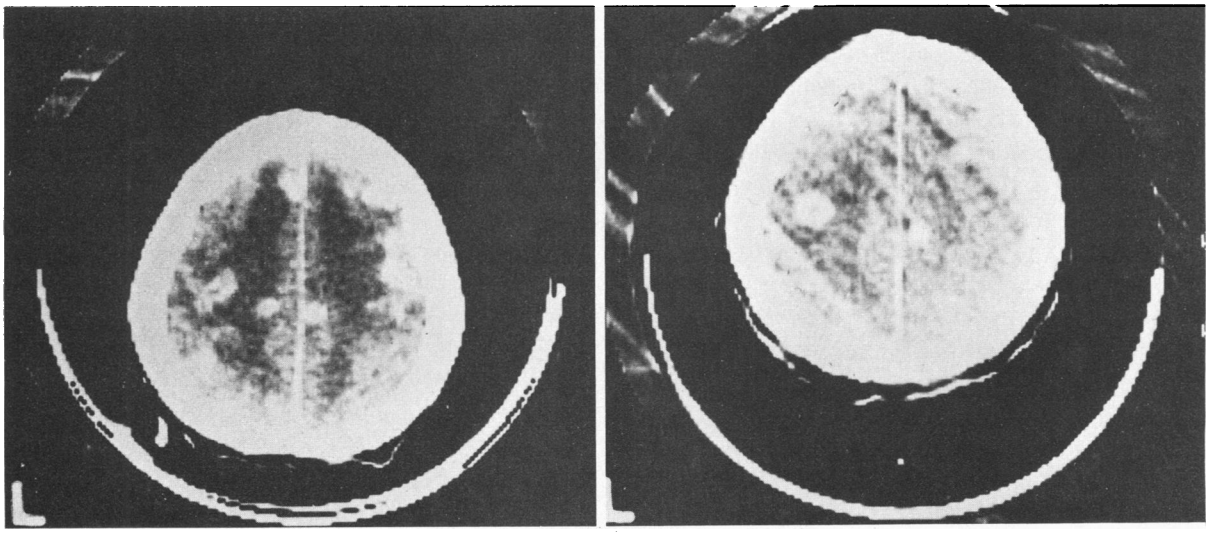
Report of a Case

A 72-year-old Paiute woman was admitted March 3, 1978, because of cough, malaise, lethargy and findings on an x-ray study of the chest that were consistent with miliary tuberculosis. A physical examination disclosed bilateral rales and evidence of a previous cardiovascular accident, with mild left-sided weakness and a left Babinski reflex. Findings of a lumbar puncture included normal pressure, two lymphocytes, and protein value of 73 mg per dl; cerebrospinal fluid and serum glucose values were 53 and 102 mg per dl, respectively. Sputum and urine cultures subsequently grew *Mycobacterium tuberculosis.*

The patient was started on a regimen of isoniazid (INH), rifampin and ethambutol, but pruritis and scleral icterus developed after 12 days, with a serum aspartate aminotransferase (serum glutamic oxaloacetic transaminase) value of 167 units per ml (normal less than 35) and a bilirubin value of 2.6. The patient's symptoms and laboratory abnormalities resolved after isoniazid therapy was discontinued.

She continued receiving rifampin and ethambutol, except during a one-week lapse during a drinking binge. She was doing well until May 16, when her family returned her to hospital, complaining that she had reverted to her native Paiute language and would no longer speak or respond to Navajo, her second language, which was used exclusively at home.

Findings on physical examination were un-



Figures 1 and 2.—Computerized tomograms showing multiple diffuse contrast-enhanced lesions in both hemispheres consistent with multiple cerebral tuberculomas **(left)** and pronounced improvement with the disappearance of all but two small convexity lesions six months after resumption of isoniazid therapy **(right).**

changed, aside from lethargy and confusion. Examination of a fluid specimen from a lumbar puncture gave these values: one polymorphonuclear leukocyte, one lymphocyte, protein of 50 mg per dl and glucose of 37 mg per dl (serum glucose 94 mg per dl).

A CT scan on May 23, 1978, showed multiple diffuse contrast-enhanced lesions in both hemispheres consistent with multiple cerebral tuberculomas (Figure 1). Pyrazinamide and capreomycin were added to the patient's regimen of rifampin and ethambutol; seizures occurred, but were controlled with phenytoin and steroids. She gradually became more oriented and lucid and regained her ability to speak Navajo.

A repeat CT scan in July 1978, again showed multiple lesions in both hemispheres, as did a third scan in October 1978.

Because the cerebral lesions had not resolved despite clinical improvement, capreomycin therapy was stopped after six months and INH was cautiously reintroduced, without recurrence of pruritis or liver abnormalities. A CT scan in June 1979, six months after INH therapy was resumed, showed pronounced improvement with the disappearance of all but two small convexity lesions (Figure 2).

After two years of therapy, all drugs were stopped. She remains free of seizures and is clinically well, and is able to do gardening and weaving of traditional baskets. She has resumed speaking fluent Paiute and Navajo.

Conclusion

Cerebral tuberculoma is a rare complication of disseminated tuberculosis in the United States, although its incidence in other countries may be much higher.[2,3] CT scanning is a valuable tool in showing the location and size of cerebral tuberculomas and is superior to scintigraphy or angiography for this purpose.[4,5] In our patient, it allowed us to follow her response to therapy in a reproducible, noninvasive manner. CT stimulated us to reinstitute INH therapy, despite evidence of previous significant toxicity, because of evidence of an inadequate response to alternative drugs that were possibly less efficacious in treating tuberculosis of the central nervous system.

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Expert Testimony in Court

TO THE EDITOR: The Specialty Conference in the August issue reviewed some elements of controversy in the provision of expert witness testimony in medical malpractice problems. The following is offered to show some areas of promise and hope in this area.

Some medical malpractice suits are filed by a disgruntled patient, or his heirs, because of an unexpected bad result of medical or surgical care. Many such suits have no merit and usually relate to (1) unrealistic patient expectations, (2) poor relation with the physician or hospital staff or (3) a bill deemed by the patient to be excessive. Other suits are filed because of a bad result due to carelessness or the physician going beyond the limits of his training, expertise and experience. Who can then best differentiate between these issues of fact to help to balance this controversy and to equalize the scales of justice between the merely unhappy or the truly medically injured patient and the physician-hospital? The properly qualified medical expert, that is who.

But, let us put one myth alluded to by the editor (in the related editorial " 'Hired Guns' in Court") behind us; the myth of the expert responsible only to the court, the amicus curiae. Our legal system has yet to evolve to this utopian state; the adversary trial system being the present state of the art placing expert against expert on each side of the issue. The ostensible goal of this contest being a search for the truth. Though we must continually strive for a better future system, we must perfect the present imperfect mechanism of justice and realize that only physicians, as unbiased experts, can present fact and opinion evidence which can lead to a fair and just hearing for either the physician-hospital defendant or the injured-deceased plaintiff.

Unhappily, the average physician prefers not